

REMARKS

Applicant respectfully requests reconsideration of this application as amended. Claims 1-26 are pending in the application. No claims have been amended. No claims have been added. No claims have been canceled.

The Examiner rejected claims 1-3, 6-7, 8-10, 11-13, 16-17, 18-19, 22-23 under 35 U.S.C. § 102(e) as being anticipated by Chaskar et al (US2004/0196808A1). Applicant reserves the right to swear behind the reference. Applicant respectfully disagrees with the Examiner.

Claim 1 is as follows:

A method for providing a triggering mechanism in an all-IP wireless communication system, comprising:
 probing a plurality of end-to-end communication paths between a mobile terminal and a correspondent node to obtain at least one QoS parameter associated with each said communication path;
 identifying each said communication path that provides a predetermined acceptable level of performance; and
 generating a handoff trigger to said communication path that provides the highest level of performance to said mobile terminal.

As set forth above, Claim 1 as amended includes probing a plurality of end-to-end communication paths between a mobile terminal and a correspondent node to obtain a QoS parameter associated with that communication path. That is, the QoS parameter is associated with the entire communication path between a mobile terminal and a correspondent node, not a portion of the communication path that excludes, for instance, the communication between a mobile terminal and some other intermediary node in the communication path. It is particularly important for an all-IP wireless communication system to take into account the QoS going across the whole entire link.

Chaskar discloses a system that permits handovers by having each access router know about capabilities of other access routers. This is done by having the access routers exchange

capability information and then using that information to select a target access router for future handoffs. Thus, access routers include selector functions that select target access routers for mobile terminals based on capability information stored in capability maps. The selector functions consult the capability maps and determine which access router best suits the capabilities needed by the mobile terminal. The selections of target routers may be done based on policies stored in each router. The capability associated with each access router may include capabilities such as QoS parameters, such as bandwidths supported by a router, or QoS parameters.

The QoS parameters described in Chaskar are part of static capabilities. This implies that they would not dynamically change with the new mobile terminal. In other words, there is no discussion that supports that the information is associated with the mobile terminal itself since the QoS information shared between with each access router, if any, is static and is independent of the mobile terminal. Therefore, those capabilities do not include the impact of the wireless link between a mobile terminal and the access router itself. That is, in such a case, the QoS parameters would not be based on the entire communication link between the terminal and a correspondent node.

The Examiner in his response to the argument for the previous office action discusses an example set forth in Chaskar that talks about a mobile terminal that is moving from one access router to another where there are potentially two access routers to which the mobile terminal may move. In such a case, the current access router consults a capability map and determines which of the two access routers in the area support the particular bandwidth that is useful for watching a movie over an IP connection. Therefore, the current access router arranges the handoff between a mobile terminal and another access router that supports the necessary bandwidth. Applicant respectfully submits this example supports the Applicant's argument that the QoS parameters are

not based on the entire communication path between the terminal and the correspondent node. The only capability discussed is that of selecting a new access router according to its bandwidth. It does not address the wireless link between the mobile and the access router itself. In other words, there is no evaluation of the location of the mobile terminal with respect to the access router. The capability table is filled in with information exchanged between the access routers. It's possible that the wireless link between the mobile and that access router capable of handling the necessary bandwidth may no longer be good due and thus that access router would not be selected. This can only occur if the entire link between the mobile device and the correspondent node has been evaluated, not just the capabilities of an access router. Therefore, Applicant respectfully submits that Chaskar does not disclose probing a plurality of end-to-end communication paths between a mobile terminal and a correspondent node to obtain a QoS parameter associated with that communication path.

Therefore, in view of the above, Applicant respectfully submits that the present invention is not anticipated by Chasker.

The Examiner also rejected Claims 4, 14 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Chaskar in view of Gibson (U.S. Patent No. 6,678,264). As set forth above, Chaskar does not disclose obtaining at least one QoS parameter associated with the entire communication paths from the mobile terminal to the correspondent node. Gibson does not overcome these limitations. Gibson describes establishing connections with a prespecified QoS across a communication network. There is no disclosure of probing end-to-end communication paths between a mobile terminal and a correspondent node (including the wireless link from the mobile terminal) to obtain a QoS parameter associated with the communication path from the mobile terminal to the correspondent node. In view of this, applicant respectfully submits that

the present invention as claimed in Claims 4, 14 and 20 is not obvious in view of Chaskar and Gibson.

The Examiner also rejected Claims 5, 15 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Chaskar in view of Hui et al (U.S. Patent No. 5,991,634). As set forth above, Chaskar does not disclose obtaining at least one QoS parameter associated with the communication path from the mobile terminal to the correspondent node. Hui does not overcome these limitations. Hui deals with plug and play telephone systems in which resources are allocated based on a peer-to-peer protocol. However, there is no disclosure of determining QoS parameters associated with the end-to-end communication between a mobile terminal (including the wireless link from the mobile terminal) and correspondent node. In view of this, Applicant respectfully submits that the present invention as claimed in Claims 5, 15 and 21 is not obvious in view of the combination of Chaskar and Hui.

The Examiner also rejected Claims 24-26 under 35 U.S.C. § 103(a) as being unpatentable over Chaskar in view of Masuda et al (U.S. Patent No. 6,314,098). Applicant respectfully disagrees. Claims 24-26 set forth that the QoS parameter is a layer 3 QoS parameter. Applicant respectfully submits that Chaskar does not disclose probing end-to-end communication paths between a mobile terminal and a correspondent node to obtain a layer 3 QoS evaluation parameter associated with that communication path.

More specifically, as set forth above, Chaskar does not disclose probing a plurality of end-to-end communication paths between a mobile terminal and a correspondent node to obtain a QoS parameter associated with that communication path. Claims 24-26 specify that the QoS parameter is a layer 3 QoS evaluation parameter correspondent to the end-to-end communication path. Therefore, as Chaskar does not describe probing and determining a QoS parameter for the entirety of each end-to-end communication path, Applicant respectfully submits the fact that the

QoS parameters are layer 3 QoS evaluation parameters is also not shown in Chaskar by implication. However, the Examiner believes that Masuda does disclose such a feature. Specifically, the Examiner points to two lines in column 4 that states the following:

“Note that a RSVP traffic is a bandwidth guarantee traffic having a quality of service (QoS) in layer 3 or more and it is called a QoS section.”

The Examiner believes that this one statement implies that a layer 3 QoS evaluation parameter corresponding to an end-to-end communication path is taught and that one skilled in the art would look to combine the teachings of Chaskar and Masuda to arrive at the present invention as claimed. Applicant respectfully disagrees.

Applicant respectfully submits that one skilled in the art would not look to combine the one sentence of Masuda and the teaching of Chaskar. However, the statement is not made in the context of probing multiple communication links between a mobile device and a correspondent node. Masuda does not disclose in all IP wireless communication system that includes probing end-to-end communication paths between a mobile terminal and a correspondent node to obtain at least QoS parameter associated with each and then generating a handoff trigger based on the higher level of performance of a mobile that is identified through the use of these parameters. Masuda is directed towards handling multipoint-to-multipoint multicast communication in an ATM connectionless communications system. Measurements of layer 2 QoS parameters over a wireless link is only sufficient to decide which access point to handle the wireless communication. However, such parameters won't estimate QoS on fixed hops as well as wireless hops. Therefore, the end-to-end QoS parameter would not be satisfied if not taking into account layer 3 QoS parameters. Claims 24-26 sets forth this. Applicant respectfully submits that Masuda does not disclose probing a plurality of end-to-end communication paths between a mobile terminal and a correspondent node to obtain at least one QoS parameter associated with

each communication path where the QoS parameter is an L3 QoS evaluation parameter. Thus, Applicant submits that the combination does not disclose all the elements of the present invention as claimed. In view of this, Applicant respectfully submits the present invention as claimed is not obvious in view of the combination of Chaskar and Masuda.

Accordingly, Applicants respectfully submit that the rejections have been overcome by the amendments and the remarks and withdrawal of these rejections is respectfully requested. Applicants submit that Claims 1-26 as amended are in condition for allowance and such action is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

Date: _____

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By: _____

Michael J. Mallie
Reg. No. 36,591

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025
(408) 720-8300